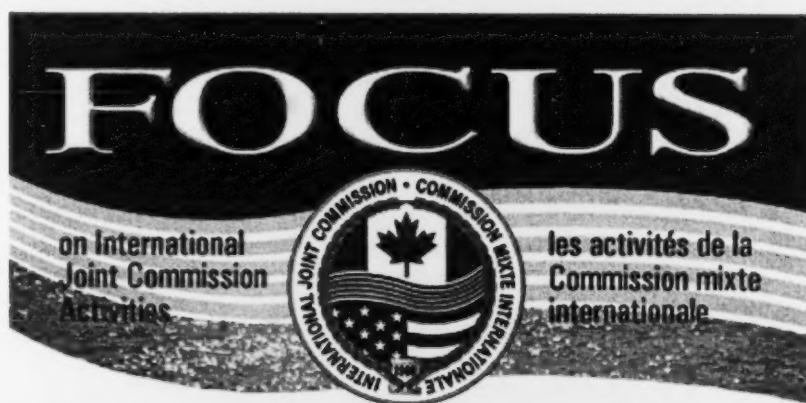




Newsletter >



International Joint Commission
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Study finds climate is major factor affecting upper Great Lakes' Levels

Since 2007, a binational team of scientists, with extensive public input, have been investigating whether there are ongoing changes in the St. Clair River that might be affecting water levels in the upper Great Lakes. In a report released in December 2009, the International Upper Great Lakes Study Board found that:

- There has been no significant erosion in the upper reach of the St. Clair River bed since at least 2000;
- An increase in the river's conveyance capacity accounts for some decline in head difference between Lake Michigan-Huron and Lake Erie, however, this change is not ongoing and the conveyance capacity has decreased slightly since 2000; and
- Climate is the main driver of lake level relationships over time and accounts for more of the decline in head difference.



Photo: J. Wingfield, IUGLS/GEIGL

"Overall, we find the analyses, results and conclusions to be technically sound and consistent with the Study objectives." Independent peer reviewer co-leads (August, 2009)

As directed by the International Joint Commission, the Study Board also reviewed previously-proposed remedial works and new innovative approaches to modifying flows in the St. Clair River and identified a range of options that might be employed if remediation were deemed necessary. However, given that the change in conveyance capacity is within the range of measurement accuracy and appears to have reversed, the Study Board did not recommend remedial measures in the St. Clair River at this time. It did recommend that the governments of Canada and the United States undertake cooperative efforts to improve the monitoring and analysis of Great Lakes water supplies and connecting channel flows.

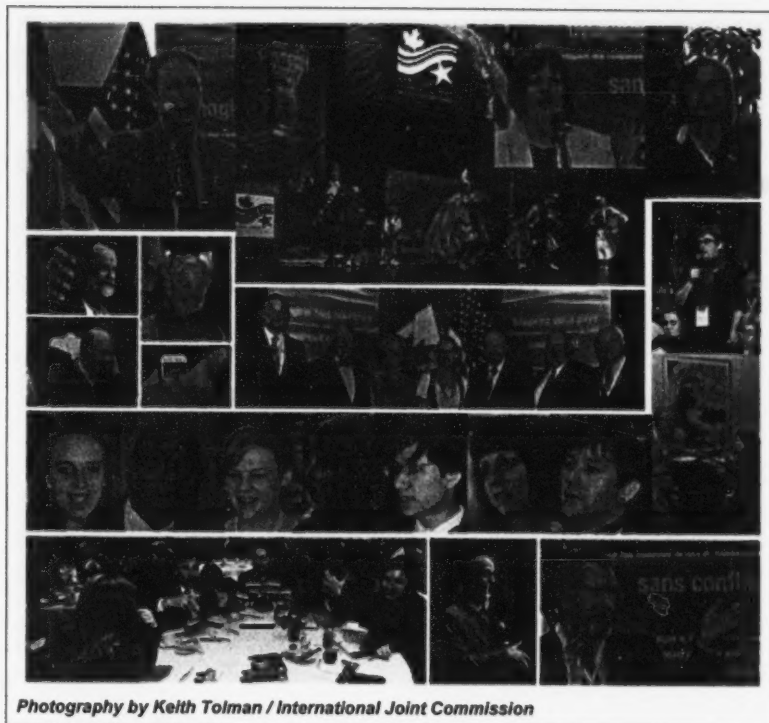
Throughout the Study, both methodological plans and technical work products have been reviewed by independent experts chosen by the American Society of Civil Engineers and the Canadian Water Resources Association. These expert reviewers gave generally high ratings and provided many constructive recommendations that have resulted in improvements to the report, ranging from the need for additional analysis to the need to quantify scientific uncertainty.

The IJC has announced it will hold its own public hearings on this report in the spring of 2010 so that the public has ample time to review the report, related technical studies and independent peer reviews. Since 2007, the Study has held 34 public meetings throughout the upper Great Lakes basin, including 17 meetings during a 90-day consultation period following release of a draft report on May 1, 2009.

The examination of the St. Clair River is part of a broader five-year study of the Great Lakes upstream from Niagara Falls. The study is expected to produce recommendations in 2012 on whether it is possible to improve the regulation of Lake Superior outflows through the compensating works and power dams on the St. Marys River in Sault Ste. Marie, Michigan and Ontario to take into consideration changing interests and changing climate. The report also recommends that this next phase of the study examine whether mitigation measures in the St. Clair River might be necessary based on the Study Board's assessment of the potential future impacts of climate change on levels in the upper Great Lakes.

Copies of the report are available from the IJC offices or online at: www.iugls.org.

"Can I make the Great Lakes a better place?" Great Lakes stakeholders respond positively at Biennial Meeting



Photography by Keith Tolman / International Joint Commission

Reports on six Great Lakes priority topics set lively and substantive discussions in motion at the Biennial Meeting under the Great Lakes Water Quality Agreement held in Windsor, Ontario on October 6-7, 2009. A diverse group of approximately 400 scientists, policy makers and others from the Great Lakes community participated in the meeting and a similar number viewed it via live webcast.

The priority reports, distributed before the meeting, culminated two years of work by the International Joint Commission's Agreement Board Work Groups. They focused on issues such as: "Can I drink the water?" "Can I eat the fish?" "Can I swim at the beach?" "Can I walk the shoreline without rotting algae?" "Can I stop the invasion of aquatic aliens?" and "Can I 'rethink' the Great Lakes?"

The interactive format included workshops, plenary discussions and a public forum, all aimed at providing input to the IJC's next biennial report under the Agreement to the governments of Canada and the United States. Participants were further engaged during presentations from key representatives of the two federal governments, two films with a commentary session and a networking reception at the Art Gallery of Windsor.

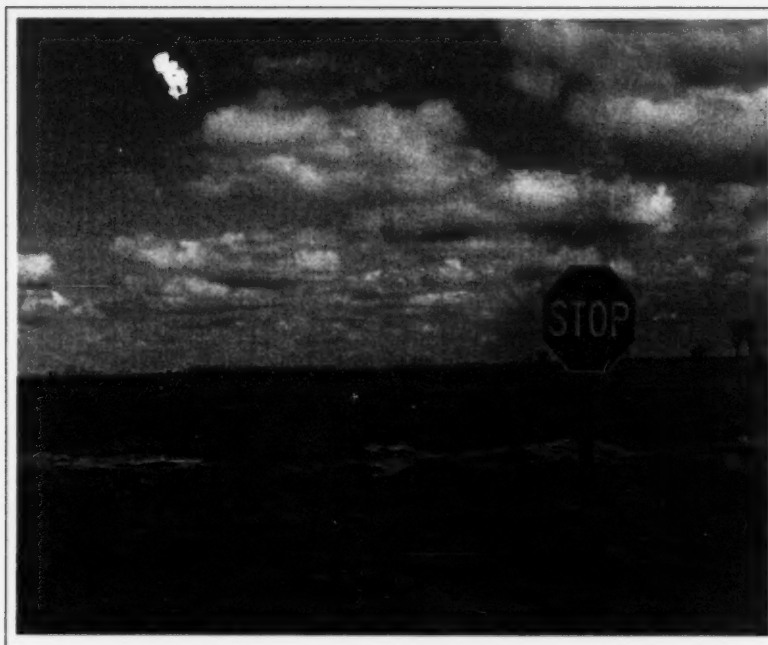
Perspectives on new initiatives related to the Agreement were provided by U.S. Environmental Protection Agency Senior Advisor Cameron Davis.

James Bruce, one of the original authors of the 1972 Agreement, offered his reflections from a historical perspective. Looking to the future, Peter Gleick of the Pacific Institute said that we have the means to solve our global water challenges in the 21st Century if we embrace new opportunities.

A "Reflections on Great Lakes Priorities" photography contest drew students from around the basin. Winners included Colleen Moser of James Madison Memorial High School in Madison, Wisconsin, Joey Giovannelli of Granville High School in Granville, Ohio, and Lindsay Sheridan of Sandwich Secondary School in Windsor, Ontario.

Report recounts progress to mitigate Red River flooding

Following the major flood of 1997, the International Joint Commission recommended a comprehensive approach to reducing damages from future floods in its November 2000 *Living with the Red* report to the governments of Canada and the United States. A new report prepared for the IJC's International Red River Board in 2009 documents the progress toward implementing these recommendations. The 2009 report was funded through the IJC's International Watersheds Initiative.



Titled *How Are We Living with the Red?*, the 2009 report examines the status of each of the IJC's recommendations in the 2000 report and highlights key achievements and remaining deficiencies. The progress report notes a record of substantial expenditures – over \$1 billion since 1997 – and many notable achievements in response to the recommendations made in 2000. The achievements include flood mitigation policy changes, upgraded emergency response plans, significant improvements to flood forecasting and successful construction of structural measures identified by the IJC. More such structural works are underway or nearing completion. The report concludes that the Red River basin is more

flood resilient than it was in 1997, thanks largely to the combined efforts of federal, state/provincial and community officials and agencies on both sides of the border.

The narrowly-averted flood disaster at Fargo, North Dakota in 2009 – the flood of record at Fargo since instrumental records were kept, and the fourth largest in the basin overall – attests to the timeliness and relevance of this progress report, and serves as a warning against complacency. The update acknowledges, and history has borne out, that the principal conclusion of the IJC's 2000 report remains valid: "Although the 1997 flood was a rare event, floods of the same size as the 1997 event, or greater, can be expected to occur in the future in the Red River basin. People and property remain at risk from these floods."

The 2009 progress report recommends that the IJC and its International Red River Board continue research under the International Watersheds Initiative into the nature of flooding and its environmental impacts in the transboundary area. The progress report identifies ongoing transboundary data acquisition and hydraulic model development as two priority areas that can strengthen the foundation for "comprehensive, integrated, binational solutions" to the basin's flood control issues.

The report is now available on the IJC website at:
<http://www.ijc.org/php/publications/pdf/ID1633.pdf>

Students tackle transboundary water issues at Model IJC Conference



The United Nations Association in Canada (UNA-Canada) hosted an inaugural Model International Joint Commission Conference for Canadian and American students from June 11-13, 2009 at Niagara University, in Lewiston, New York. The purpose of this conference, held in conjunction with the 100th anniversary of the Boundary Water Treaty, was to engage youth in understanding the role of the IJC, the Boundary Water Treaty and

the importance of transboundary water policies. UNA-Canada drew on years of experience in organizing model United Nations simulations to adapt a well-established experiential learning model to another important international forum.

Student delegates, who played the roles of IJC Commissioners, technical advisors and stakeholders, strived to reach consensus in three working sessions and an emergency session. They formulated proposals to address the problem of aquatic invasive species in the Great Lakes, including a public awareness campaign, new regulatory requirements and training for ship captains. A session on water apportionment in the St. Mary and Milk rivers focused on developing a process that would include all stakeholders, as well as improvements in infrastructure and water-use efficiency. The Lake Ontario-St. Lawrence River Water Levels Task Force passed a resolution that emphasized setting flows to balance different needs, as well as partnering with stakeholders to develop sustainable water uses and mitigate environmental impacts. Delegates in the emergency session on bulk water removals agreed that no large removals of water from the Great Lakes should occur, but discussed the possibility of using a small river or lake as a test case and monitoring the environmental results.

"Participants in the (St. Mary and Milk rivers) dispute recognized the value of working together and moving beyond self interests towards the best interests of all involved." — Vanessa Cotric, Queen's University

Response to the conference was overwhelmingly positive. Many participants said that the conference made them more interested in water issues and binational cooperation. A second Model IJC Conference will be held in conjunction with the Model UN from March 10-13, 2010 in Vancouver, British Columbia. For updates on the events in Vancouver, watch the UNA-Canada website at www.unac.org.

"Yet despite equity being perceived differently among downstream and upstream users, the U.S. and Canadian parties did reach a surprising consensus when the moment came to identify the problems experienced by the two countries." — Kim McGrath, McGill University

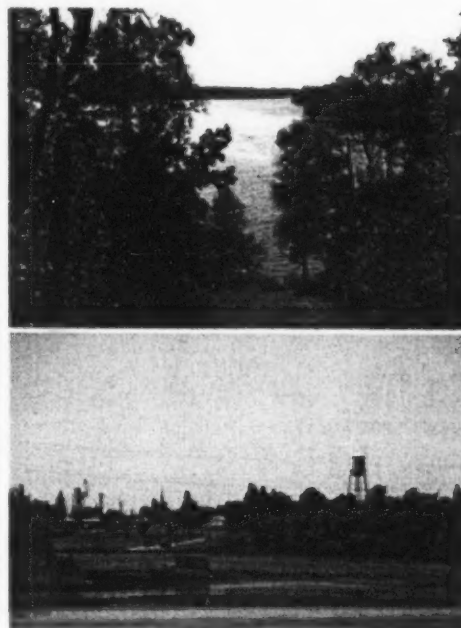
Report examines human health in Lake of the Woods watershed

The Health Professionals Task force released of an innovative report in December 2009 that links human health to water-related issues in the boundary waters of the Lake of the Woods and Rainy River basins. The Task Force commissioned the report in collaboration with the International Rainy Lake Board of Control, International Rainy River Water Pollution Board and the International Lake of the Woods Control Board as a project under the International Joint Commission's International Watersheds Initiative.

Water and Health in Lake of the Woods and Rainy River Basins takes a watershed approach to examining the potential health impacts of 16 threats and identifies their connections to three categories of health concerns: "Can I drink the water?" "Can I eat the local fish?" "Can I go swimming at the beach?" The report also looks at existing data collection gaps as well as the responsibilities and programs of organizations that are currently involved with source water protection and human health.

The Lake of the Woods and Rainy River basin is situated on the international border between Ontario, and Minnesota. It is an area of

forested parks and farms that is populated by towns, villages and small cities. A number of dams, which regulate water levels and flows in the basin, can affect water quality and may have an indirect impact on human health. The area has a history of farming, mining, logging and pulp and paper industries that have also impact on water quality. Currently, the area is known as a recreation and tourism destination for fishing and boating. Water quality issues such as algae blooms in Lake of the Woods and closures of municipal beaches as a result of urban runoff are of growing concern.



The report notes that water-related threats to human health are closely related to source water protection. Preventing harmful bacteria and chemical contaminants from entering surface water and groundwater systems is crucial to protecting the health of water and human health. Yet the responsibilities for protecting and managing water in the basin are shared among a number of agencies in both the United States and Canada, each with its own focus and, in many cases, apparent overlapping responsibilities. In terms of health issues related to water, the responsibilities are not clearly delineated between government agencies and departments. The report points out that management of the shared watershed, including the process of identifying health issues in shared waters, would be facilitated by a standardization of source water protection, drinking water and fish consumption guidelines, as well as other water-related regulations between the two countries. The challenge lies in first understanding each agency's role and integrating health related issues into the larger water management process. The report is available at the IJC website at www.ijc.org.

IJC calls for urgent action to stop Asian carp

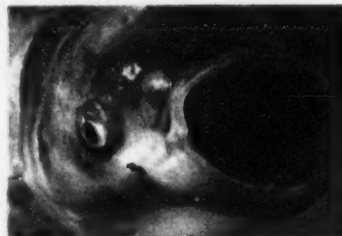
Since 2002, the International Joint Commission has alerted both the U.S. and Canadian governments to the urgent need to stop destructive Asian carp from reaching the Great Lakes and adequately fund prevention measures. Asian carp invaded the Mississippi River basin and have made their way up the Illinois River to the Chicago Sanitary and Ship canal (CSSC). It is believed that they might be beyond an electric



Bill Bolen from the Environmental Protection Agency guides IJC Commissioners Pierre Trépanier and Sam Speck on a tour of Chicago Sanitary and

barrier meant to prevent their migration into Lake Michigan. In a November 10, 2009 letter to U.S. federal agencies and the Governor of Illinois, the IJC raised concerns that sufficient action is not being taken soon enough to complete all sections of the electric barrier system and to prevent floodwater connections that would allow the carp to migrate into the canal from the neighboring Des Plaines River. The IJC supports a recommendation to construct a higher physical separation between stretches of the Des Plaines River

Ship Canal.



Marlin Levison/Star Tribune/Associated Press



Missouri River Institute

and the CSSC. It also supports action to close off the Illinois and Michigan canal so that storm water discharges could continue without allowing the passage of Asian carp. Further, the Asian carp should now be pushed back by poisoning a section of the CSSC to allow the Army Corps of Engineers to conduct scheduled maintenance of the electric barrier and complete the construction of the second electric barrier array. IJC staff participates in interagency rapid response planning initiatives to evaluate and respond to aquatic invasive species such as Asian carp and the IJC will continue to closely monitor the issue.

People

The Rt. Hon. Herb Gray's second term as chair of the Canadian Section of the International Joint Commission expires on January 14, 2010. The IJC thanks him for his leadership over the last eight years and wishes him the best in all his future endeavors, in particular his ongoing role as chancellor of Carleton University in Ottawa.



Council of Great Lakes Research Managers *welcomes:*

Dr. Greg Boyer, State University of New York, Syracuse

Dr. Marie Colton, National Oceanic and Atmospheric Administration

Norm Granneman, U.S. Geological Survey

Dr. Val Klump, University of Wisconsin-Milwaukee

Completing service:

Dr. Ed Mills, Cornell University Biological Field Station

Jim Nicholas, U.S. Geological Survey

Great Lakes Water Quality Board welcomes:
Scott Millard, Department of Fisheries and Oceans
James Richardson, Ontario Ministry of Agriculture,
Food and Rural Affairs
Completing service:
Peter Meerveld, Ontario Ministry of Agriculture,
Food and Rural Affairs
Peter Thompson, Department of Fisheries and Oceans

Health Professionals Task Force welcomes:
Dr. Ray Copes (Canadian co-chair),
Ontario Agency for Health Protection and Promotion
Dr. John Dellinger (U.S. co-chair), University of Wisconsin
Dr. William Michael Routledge, University of Manitoba and Winnipeg
Regional Health Authority
Completing service:
Dr. Brian L. Gibson (Canadian co-chair),
LAMP Community Health Centre, Etobicoke, ON

International Red River Board welcomes:
Gordon Bell, Agriculture and Agri-Food Canada
Dennis Breitzman, Bureau of Reclamation
Col. Jon Christensen, (U.S. co-chair)
U.S. Army Corps of Engineers
Completing service:
Phil Adkins, Agriculture and Agri-Food Canada
Michael Ryan, Bureau of Reclamation

International St. Croix River International Watershed Board welcomes:
Matthew Schweisberg, Environmental Protection Agency
Completing service:
Carol Wood, Environmental Protection Agency
International

St. Lawrence River Board of Control welcomes:
Tom Brown, State of New York (retired)
Joan Frain, Ontario Power Generation
Completing service:
Daniel Breton, Canadian Coast Guard

International Upper Great Lakes Study, Public Interest Advisory Group
welcomes:
Frank Ettawageshik, Little Traverse Bay Bands
of Odawa Indians
Glen Nekvasil, Lake Carriers' Association
Jim Te Selle, Wisconsin Great Lakes Coalition
Completing service:
Dan Tadgerson, Algoma Public Health
James Weakley,
Lake Carriers' Association

In remembrance

Jacques Lorquet of the Canadian Coast Guard passed away in July 2009 after serving more than nine years as the Canadian co-chair of



the International St. Lawrence River Board of Control. He will be missed by his colleagues on the Board and at the International Joint Commission.



Contact Us		
The IJC is interested in your views on our activities. You may contact us the following ways:		
Canadian Section	United States Section	Great Lakes Regional Office
Murray Clamen Secretary	Charles Lawson Secretary	John Gannon, Bruce Kirschner Co-directors
Bernard Berckhoff Public Affairs	Frank Bevacqua Public Affairs	Vacant Public Affairs
Email: Commission@ottawa.ijc.org	Commission@washington.ijc.org	Commission@windsor.ijc.org
Mail: 234 Laurier Avenue, W. 22 nd Floor Ottawa ON K1P 6K6	2401 Pennsylvania Ave. 4th Floor Washington, DC 20037	100 Ouellette Avenue, 8 th Floor Windsor ON N9A 6T3 or P.O. Box 32869 Detroit, MI 48232-2869
Fax: 613-993-5583	202-254-4564	519-257-6740
Telephone: 613-995-2984	202-736-9000	519-257-6700 or 313-226-2170

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